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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,535	12/14/2001	Barbir Abdulkader	08888512US	3243
26123	7590	11/01/2005	EXAMINER	
BORDEN LADNER GERVAIS LLP WORLD EXCHANGE PLAZA 100 QUEEN STREET SUITE 1100 OTTAWA, ON K1P 1J9 CANADA			LEMMMA, SAMSON B	
			ART UNIT	PAPER NUMBER
			2132	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/014,535	Applicant(s) ABDULKADER, BARBIR	
	Examiner Samson B. Lemma	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This office action is in reply to an amendment filed on August 05, 2005.

Claims 1-10 are pending.

Response to Arguments

2. Applicant's arguments with respect to **Claims 1-10** have been considered but are moot in view of the new ground(s) of rejection.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119 (a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-10** are rejected under 35 U.S.C. 102(e) as being anticipated by **Wachs et al** (hereinafter referred as **Wachs**) (U.S. Patent No. 6,226,491 B1)

6. **As per claim 1 and 10, Wachs** discloses an encryption system comprising:

• **A transmitting device for modulating data with a pseudo-random signal for signaling over a transmission medium;**[Abstract; column 3, lines 65-column 4, line 4; figure 2, ref. Num "102"; column 4, lines 15-24] (A transmitting device/ a satellite transponder/a satellite repeater shown has a receiving antenna subsystem located in said satellite repeater for receiving and modulating a carrier signal/data; a first pseudo-random noise generator located in said satellite repeater for generating a first pseudo-random waveform ;a mixer comprising a local oscillator, said local oscillator coupled to said first pseudo-random noise generator to modulate said carrier signal / data with said first pseudo-random waveform;) and

- **A receiving device [figure 2, ref. Num "106" "user terminal"] for receiving said data by removing said pseudo-random signal.** [column 4, lines 35-38] (said authorized user terminal modulates said carrier signal with said second pseudo-random waveform to remove said first pseudo-random waveform from said carrier signal)

7. **As per claim 2, Wachs** discloses an encryption system as applied to claim 1 above. Furthermore **Wachs discloses the system wherein said transmitting device**

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[A transmitting device/ a satellite transponder/a satellite repeater] **further comprises: means to generate a second modulated signal;** [figure 2, ref. "102"] (The second modulated signal as explained on claim 4 is a pseudo-random signal and Wachs discloses at least on column 4, lines 17-19, first pseudo-random noise generator located in said satellite repeater for **generating a first pseudo-random waveform which is equivalent to "the second modulated signal"**)

• Means to add said second modulated signal to said data signal to produce a transmitted signal; [column 4, lines 21-24] (a mixer comprising a local oscillator, said local oscillator coupled to said first pseudo-random noise generator to modulate said carrier signal with said first pseudo-random waveform); **and means to send said transmitted signal over a transmission medium [Figure 2; ref. Num "104";].** (wherein the receiving antenna of the transmitting device subsystem modulates said carrier signal received at said satellite repeater with said first pseudo-random waveform and said authorized user terminal modulates said carrier signal with said second pseudo-random waveform to remove said first pseudo-random waveform from said carrier signal and provide access of said authorized user terminals to said satellite repeater and wherein said first pseudo-random waveform is not removed from the carrier signal of unauthorized user terminals to restrict access of said unauthorized user terminals to said satellite repeater.)

8. **As per claim 3, Wachs discloses an encryption system as applied to claim 2 above.** Furthermore **Wachs** discloses the system wherein **said receiving device [figure 2; ref. Num "106"] further comprises means to generate a third modulated signal;** [column 4, lines 25-30] **(The third modulated signal as explained on claim 4 is a pseudo-random signal generated at the receiving side as shown on figure 2, ref. Num "114") and to subtract said third modulated signal from said transmitted signal to produce a data output signal; and means to demodulate said output signal to produce a second data output signal.** [column 4, lines 35-38] (said authorized user terminal modulates/ demodulate said carrier signal with said second pseudo-random waveform to remove said first pseudo-random waveform from said carrier signal)

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9. **As per claim 4, Wachs** discloses an encryption system as applied to claim 3 above. Furthermore Wachs discloses the system wherein said second modulated signal and said third modulated signal are pseudo-random and opposite in amplitude, but otherwise identical in phase and frequency, thereby simplifying the demodulation of said data. [column 2, lines 15-20] (They are inherently identical because one is the inverse of the other.)

10. **As per claim 5, Wachs** discloses an encryption system as applied to claim 4 above. Furthermore Wachs discloses the system wherein the parameters defining the phase, amplitude and frequency of said second modulated signal and said third modulated signal are derived from a random number generator seeded with a key, thereby increasing the difficulty of an intruder planning to intercept said transmitted signal. [Column 2, lines 63-66 and column 1, lines 48-49] ("Inhibiting unauthorized user access").

11. **As per claim 6 and 9, Wachs** discloses an encryption system as applied to claim 4 above. Furthermore Wachs discloses the system wherein said random number generator is implemented at both the transmitter [figure 2, ref. Num "102"] and receiver [figure 2, ref. Num "114"] and seeded with the same key [column 2, lines 63-66] so that parameters derived from both are the same and when applied to said means for generating said second modulated signal and said means for generating said third modulated signal result in the same signal being generated, thereby ensuring correct reception of said transmitted signal. [column 2, lines 17-20; figure 2, ref. Num "104"; column 3, lines 40-45];

12. **As per claim 7 and 8, Wachs** discloses an encryption system as applied to claim 4 above. Furthermore Wachs discloses the system wherein the data is manipulated as a `group of bits` and the number of bits in a `group of bits` is a parameter and may be

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varied for each group of bits and said number of bits parameter is derived from a second random number generator. (figure 2, ref. "102"] (The second modulated signal as explained on claim 4 is a pseudo-random signal and Watchs discloses at least on column 4, lines 17-19, first pseudo-random noise generator located in said satellite repeater for generating a first pseudo-random waveform which is equivalent to "the second modulated signal" this process inherently contains manipulation of "group of bits")

13. **Claims 1-10** are rejected under 35 U.S.C. 102(b) as being anticipated by **Liu et al** (hereinafter referred as **Liu**) (U.S. Patent No. 5,982,809)

14. **As per claim 1-10, Liu** discloses an encryption system comprising:

• **A transmitting device for modulating data with a pseudo-random signal for signaling over a transmission medium; and a receiving device for receiving said data by removing said pseudo-random signal [column 1, lines 13-23 and column 12, lines 32-50] (The following is disclosed on column 1, lines 13- 23, "In a direct sequence spread spectrum communication system, each message symbol is spread into a plurality of chips using a pseudo-random (PN) sequence known to both the transmitter and the receiver. The plurality of chips are then modulated onto an analog carrier signal, such as an RF (radio frequency) signal, for transmission. The receiver down-converts the received signals to remove the analog carrier frequency. Ideally, a receiver can perform despreading to remove the PN sequence from the downconverted received signals with the replica of the PN sequence and recover the transmitted message symbols " and**

Liu also discloses the following on column 12, lines 32-50,

"In a direct sequence spread spectrum communication system, wherein digital spread spectrum signals modulated by a pseudo-random sequence have a carrier frequency,

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wherein the carrier frequency includes an expected carrier frequency and a carrier frequency offset, a carrier offset estimation method for recovering the carrier offset, comprising the steps of:

receiving digital spread spectrum signals **modulated with a pseudo-random sequence**, wherein said digital spread spectrum signals have a carrier frequency, wherein the carrier frequency includes an expected carrier frequency and a carrier frequency offset;

demodulating said digital spread spectrum signals to remove said expected carrier frequency, wherein said demodulating also includes demodulating said digital spread spectrum signals **to remove said pseudo-random sequence**, wherein said demodulating produces demodulated received signals and this meets all limitation of of the independent claims 1 and 10 ")

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.(See PTO-Form 892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samson B Lemma whose telephone number is 571-272-3806. The examiner can normally be reached on Monday-Friday (8:00 am---4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BARRON JR GILBERTO can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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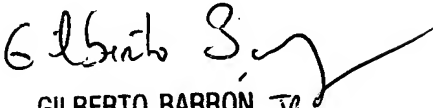
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SAMSON LEMMA

S.L.
10/22/2005


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